

Federal Highway Administration, DOT

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documents may be obtained from the following organizations:

(1) American Association of State Highway and Transportation Officials (AASHTO), Suite 249, 444 North Capitol Street, NW., Washington, DC 20001.

(2) American Welding Society (AWS), 2501 Northwest Seventh Street, Miami, FL 33125.

[62 FR 15397, Apr. 1, 1997, as amended at 67 FR 6395, Feb. 12, 2002; 69 FR 18803, Apr. 9, 2004; 71 FR 26414, May 5, 2006; 74 FR 28442, June 16, 2009]

PART 626—PAVEMENT POLICY

Sec.

626.1 Purpose.

626.2 Definitions.

626.3 Policy.

AUTHORITY: 23 U.S.C. 101(e), 109, and 315; 49 CFR 1.48(b).

SOURCE: 61 FR 67174, Dec. 19, 1996, unless otherwise noted.

§ 626.1 Purpose.

To set forth pavement design policy for Federal-aid highway projects.

§ 626.2 Definitions.

Unless otherwise specified in this part, the definitions in 23 U.S.C. 101(a) are applicable to this part. As used in this part:

Pavement design means a project level activity where detailed engineering and economic considerations are given to alternative combinations of subbase, base, and surface materials which will provide adequate load carrying capacity. Factors which are considered include: Materials, traffic, climate, maintenance, drainage, and life-cycle costs.

§ 626.3 Policy.

Pavement shall be designed to accommodate current and predicted traffic needs in a safe, durable, and cost effective manner.

PART 627—VALUE ENGINEERING

Sec.

627.1 Purpose and applicability.

627.3 Definitions.

627.5 Applicable projects.

627.7 VE programs.

627.9 Conducting a VE analysis.

AUTHORITY: 23 U.S.C. 106(e), 106(g), 106(h), 112(a) and (b), 302, 315; and 49 CFR part 18.

SOURCE: 79 FR 52975, Sept. 5, 2014, unless otherwise noted.

§ 627.1 Purpose and applicability.

(a) The purpose of this part is to prescribe the programs, policies and procedures for the integration of value engineering (VE) into the planning and development of all applicable Federal-aid highway projects.

(b) Each State transportation agency (STA) shall establish and sustain a VE program. This program shall establish the policies and procedures under which VE analyses are identified, conducted and approved VE recommendations implemented on applicable projects (as defined in § 627.5 of this part). These policies and procedures should also identify when a VE analysis is encouraged on all other projects where there is a high potential to realize the benefits of a VE analysis.

(c) The STAs shall establish the policies, procedures, functions, and capacity to monitor, assess, and report on the performance of the VE program, along with the VE analyses that are conducted and Value Engineering Change Proposals (VECP) that are accepted. The STAs shall ensure that its sub-recipients conduct VE analyses in compliance with this part.

§ 627.3 Definitions.

The following terms used in this part are defined as follows:

(a) *Bridge project*. A bridge project shall include any project where the primary purpose is to construct, reconstruct, rehabilitate, resurface, or restore a bridge.

(b) *Final design*. Any design activities following preliminary design and expressly includes the preparation of final construction plans and detailed specifications for the performance of construction work.

(c) *Project*. The term “project” means any undertaking eligible for assistance under title 23 of the United States Code. The limits of a project are defined as the logical termini in the environmental document and may consist of several contracts, or phases of a project or contract, which may be implemented over several years.

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(d) *Total project costs.* The estimated costs of all work to be conducted on a project including the environment, design, right-of-way, utilities and construction phases.

(e) *Value Engineering (VE) analysis.* The systematic process of reviewing and assessing a project by a multidisciplinary team not directly involved in the planning and development phases of a specific project that follows the VE Job Plan and is conducted to provide recommendations for:

(1) Providing the needed functions, considering community and environmental commitments, safety, reliability, efficiency, and overall life-cycle cost (as defined in 23 U.S.C. 106(f)(2));

(2) Optimizing the value and quality of the project; and

(3) Reducing the time to develop and deliver the project.

(f) *Value Engineering (VE) Job Plan.* A systematic and structured action plan for conducting and documenting the results of the VE analysis. While each VE analysis shall address each phase in the VE Job Plan, the level of analysis conducted and effort expended for each phase may be scaled to meet the needs of each individual project. The VE Job Plan shall include and document the following seven phases:

(1) Information Phase: Gather project information including project commitments and constraints.

(2) Function Analysis Phase: Analyze the project to understand the required functions.

(3) Creative Phase: Generate ideas on ways to accomplish the required functions which improve the project's performance, enhance its quality, and lower project costs.

(4) Evaluation Phase: Evaluate and select feasible ideas for development.

(5) Development Phase: Develop the selected alternatives into fully supported recommendations.

(6) Presentation Phase: Present the VE recommendation to the project stakeholders.

(7) Resolution Phase: Evaluate, resolve, document and implement all approved recommendations.

(g) *Value Engineering Change Proposal (VECP).* A construction contract change proposal submitted by the con-

struction contractor based on a VECP provision in the contract. These proposals may improve the project's performance, value and/or quality, lower construction costs, or shorten the delivery time, while considering their impacts on the project's overall life-cycle cost and other applicable factors.

§ 627.5 Applicable projects.

(a) A VE analysis shall be conducted prior to the completion of final design on each applicable project that utilizes Federal-aid highway funding, and all approved recommendations shall be included in the project's plans, specifications and estimates prior to authorizing the project for construction (as specified in 23 CFR 630.205).

(b) Applicable projects requiring a VE analysis shall include the following:

(1) Each project located on the National Highway System (NHS) (as specified in 23 U.S.C. 103) with an estimated total project cost of \$50 million or more that utilizes Federal-aid highway funding;

(2) Each bridge project located on the NHS with an estimated total project cost of \$40 million or more that utilizes Federal-aid highway funding;

(3) Any major project (as defined in 23 U.S.C. 106(h)), located on or off of the NHS, that utilizes Federal-aid highway funding in any contract or phase comprising the major project;

(4) Any project where a VE analysis has not been conducted and a change is made to the project's scope or design between the final design and the construction letting which results in an increase in the project's total cost exceeding the thresholds identified in paragraphs (b)(1), (2) or (3) of this section; and

(5) Any other project FHWA determines to be appropriate that utilizes Federal-aid highway program funding.

(c) An additional VE analysis is not required if, after conducting a VE analysis required under this part, the project is subsequently split into smaller projects in the design phase or the project is programmed to be completed by the letting of multiple construction projects. However, the STA may not avoid the requirement to conduct a VE analysis on an applicable